

IN THE CLAIMS:

The following is a complete listing of the claims, and replaces all earlier listings and all earlier versions.

1. (Currently Amended) An image processing apparatus comprising:

extraction means for extracting a pixel signal of ~~a defective pixel included in~~
an image pickup means having that has a plurality of pixels, and for determining a defective
pixel positional information of defective pixels based on the pixel signal; [[and]]

block-forming means for ~~forming positional information of judging whether~~
a plurality of the defective pixels ~~determined by said extraction means into a block~~ are
adjacent to each other on the basis of the positional information of the defective pixels and
for extracting regional information of the adjacent defective pixels; and

storage means for storing the extracted regional information of the adjacent
defective pixels.

2. - 6. (Canceled).

7. (Currently Amended) An image processing apparatus comprising:

storage means for storing, ~~in blocks of units, positional~~ regional information
of ~~a plurality of adjacent~~ defective pixels ~~included in image pickup means having a~~
~~plurality of pixels; and~~

correction means for correcting ~~defective pixel signals of the defective~~
~~pixels in the image pickup means in units of blocks by using the positional information of~~
~~the defective pixels stored in said storage means~~ the defective pixels by using peripheral
pixels of the defective pixels,

wherein said correction means changes a correction method of the defective
pixels by using the regional information.

8. - 29. (Canceled).

30. (New) An image processing apparatus comprising:

extraction means for extracting a pixel signal from an image pickup means
that has a plurality of pixels, and for determining positional information of defective pixels
based on the pixel signal;

block-forming means for judging whether a plurality of the defective pixels
are adjacent to each other on the basis of the positional information of defective pixels and
for extracting regional information of the adjacent defective pixels; and

correction means for correcting said defective pixels by using peripheral
pixels of the defective pixels,

wherein said correction means changes a correction method of the defective
pixels by using the regional information.

31. (New) An image processing apparatus according to claim 1, wherein said block-forming means expresses the position and the width of the defective pixels adjacent in one direction using run-length coding.

32. (New) An image processing apparatus according to claim 30, wherein said correction means takes a pixel region necessary to correct the adjacent defective pixels from an output image of the image pickup means and corrects those defective pixels by using pixels in that pixel region by using the regional information.

33. (New) An image processing apparatus according to claim 1, wherein said extraction means judges pixels defective when the value of the pixel signal is within a predetermined range and determines the positional information of the defective pixels.

34. (New) An image processing apparatus according to claim 7, wherein said correction means takes a pixel region necessary to correct the adjacent defective pixels from an output image of an image pickup means and corrects those defective pixels by using pixels in that pixel region by using the regional information.

35. (New) An image processing method comprising:
a first step, of extracting a pixel signal of image pickup means having a plurality of pixels and determining positional information of defective pixels based on the pixel signal;

a second step, of judging whether a plurality of defective pixels are adjacent to each other on the basis of the positional information of defective pixels and for extracting regional information of adjacent defective pixels; and

a third step, of correcting the defective pixels by using peripheral pixels of the defective pixels,

wherein said third step includes changing a correction method of the defective pixels by using the regional information.

Q' 36. (New) An image processing apparatus comprising:

correction means for correcting defective pixels by using peripheral pixels of the defective pixels;

storage means for storing regional information of any adjacent defective pixels;

control means for controlling said correction means and storage means,

wherein said control means executes:

a first step, of reading the regional information of the adjacent defective pixels out of said storage means; and

a second step, of correcting the defective pixels by using the peripheral pixels of the defective pixels,

wherein said second step includes changing a correction method of the defective pixels by using the regional information.

37. (New) A storage medium storing a program which comprises:

a first step, of extracting a pixel signal of an image pickup means that has a plurality of pixels, and determining positional information of defective pixels based on the pixel signal;

a second step, of judging whether a plurality of the defective pixels are adjacent to each other on the basis of the positional information of the defective pixels, and extracting regional information of the adjacent defective pixels; and

a third step, of correcting the defective pixels by using peripheral pixels of the defective pixels,

wherein said third step includes changing a correction method of the defective pixels by using the regional information.

38. (New) An image processing system comprising:

image pickup means having a plurality of pixels for picking up an image of a subject;

an image processing apparatus for performing image processing of an image signal from said image pickup means, comprising:

extraction means for extracting a pixel signal of the image pickup means and determining positional information of defective pixels based on the pixel signal;

block-forming means for judging whether a plurality of defective pixels are adjacent to each other on the basis of the positional information of defective pixels and for extracting regional information of the adjacent defective pixels; and

correction means for correcting the defective pixels by using
peripheral pixels of the defective pixels;

a monitor for monitoring the image signal processed by said image
processing apparatus;

a network for transmitting the image signal processed by said image
processing apparatus; and

an image database, connected to said network, for storing the image signal,

wherein said correction means changes a correction method of the defective
pixels by using the regional information.
